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ABSTRACT

This set of 4 modules on intake and output is 1 of 11 sets in the Health Occupations Education I instructional package for the first year of a 2-year course of study. The materials are designed to prepare students through individualized instruction for entry-level job opportunities on health care teams in a variety of practice settings. Each module may contain some or all of the following components: introduction, directions with materials needed to complete the module, objective, learning activities, student information, student self-check, check-out activities, and evaluator's final checklist to rate student performance. Modules cover these tasks: collecting, testing, charting, and recording specimens; assisting with care of urinary drainage; assisting bed patient with elimination of body wastes; and measuring and recording intake and output. (YLB)

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HEALTH OCCUPATIONS EDUCATION I

MODULE NO. IX-A to IX-D

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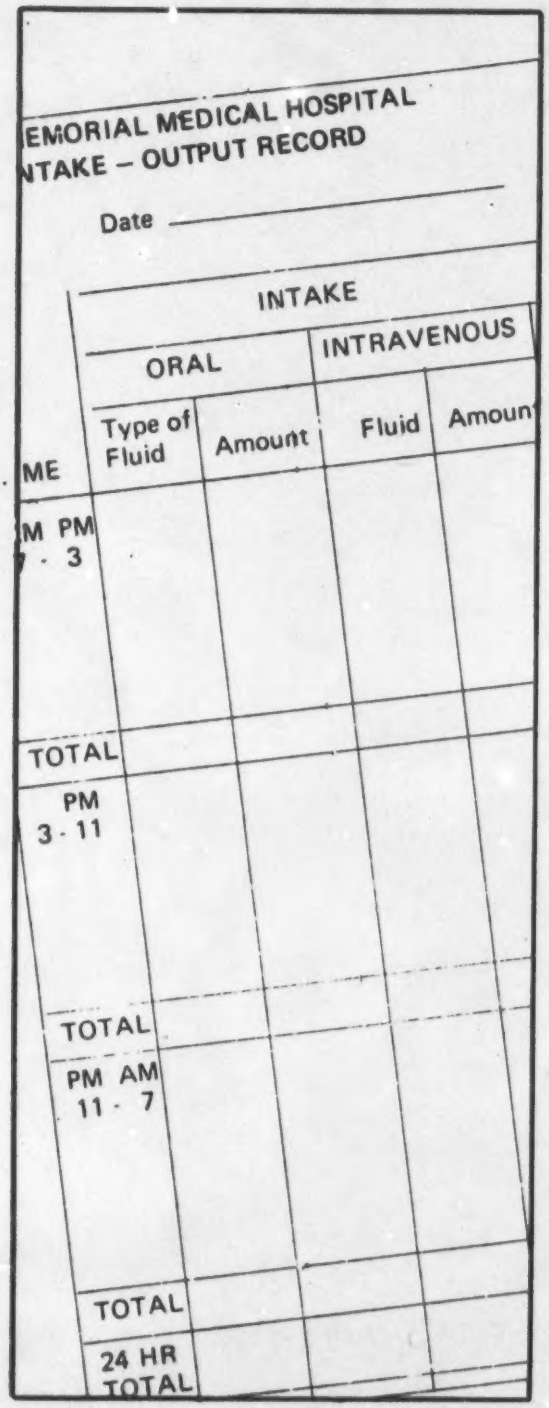
COLLECTING, TESTING, CHARTING, AND RECORDING SPECIMENS



EMORIAL MEDICAL HOSPITAL
NTAKE – OUTPUT RECORD

Date _____

ME	INTAKE			
	ORAL		INTRAVENOUS	
	Type of Fluid	Amount	Fluid	Amoun
M PM 7 - 3				
TOTAL				
PM 3 - 11				
TOTAL				
PM AM 11 - 7				
TOTAL				
24 HR TOTAL				

INTRODUCTION

In this module you will be learning how to collect, test, chart, and record five different types of specimens. The types of specimens include: urinary, sputum, and feces. These performances will be related to future studies of the urinary, digestive, and respiratory systems. Tasks, such as these, are necessary to aid the physician to correctly diagnose a patient's condition. These skills are basic to any health assistant position.

DIRECTIONS

Read the objectives below. If you think that you are able to perform this task, read the Check-Out Activity. Then either arrange with your evaluator to do the Check-Out Activities,

or

If you need to complete learning activities in order to be able to do the tasks, find the Learning Activities and go through them in the order in which they are listed.

OBJECTIVES

Provided a patient, physician's orders, lab request, and necessary equipment and supplies, collect all urine from the patient over a 24-hour period.

Provided a patient, physician's orders, a laboratory requisition, and the necessary equipment and supplies, collect a routine urine specimen. The specimen must be of sufficient quantity (120 to 150 cc) and the specimen container correctly labeled.

Provided a patient, physician's orders, a laboratory requisition and the necessary

equipment and supplies, collect a clean catch (and/or midstream) urine specimen. The urine must be collected in a properly labeled, sterile container from an interrupted urine stream.

Provided a patient, physician's orders for a stool specimen, a laboratory requisition, and the necessary equipment and supplies, collect a stool specimen. The specimen must be of sufficient quantity for analysis and placed in a properly labeled container.

Provided a patient, physician's orders for a sputum specimen, a laboratory requisition, and the necessary equipment and supplies, collect a sputum specimen. The specimen must be obtained without contamination from other sources and the container properly labeled.

Given a urine specimen, physician's orders and the necessary equipment and supplies, test the urine for sugar and/or acetone. The results must be determined and recorded without error.

LEARNING ACTIVITIES

1. READ about the collection, testing, charting, and reporting of specimens in your text, Nursing Skills for Allied Health Services, pp. 294-328, 406-407, 547-548,

   (and/or) _____.

2. COMPLETE Student Self-Check, TERMINOLOGY.

3. VIEW Trainex Filmstrip, "Collecting Urine Specimens" to learn about collecting, testing, charting, and recording specimens,

   (and/or)_____, _____.

4. PRACTICE taking specimen collections,

   (and/or)_____.

5. COMPLETE Student Self-Check, SPECIMENS.

6. ARRANGE with your evaluator to complete this module by going through the Check-Out Activities.

STUDENT SELF-CHECK

Terminology

On a separate sheet of paper, match the words in Column A to their definitions in Column B. Check your answers against the key.

Column A

1. urine
2. void
3. bladder
4. kidney
5. urethra
6. genital area
7. rectum
8. bedpan
9. emesis basin
10. acetone
11. sputum
12. expectorate
13. specimen
14. stool
15. feces
16. perineal area
17. meatus
18. quantity
19. graduate cylinder
20. tongue blades
21. sterile
22. S + A

Column B

A. sugar and acetone

B. amount

C. the urine canal

D. fluid and dissolved substances secreted by kidneys

E. free of bacteria

F. evacuated body wastes

G. a sample

H. coughed-up material from lungs

I. wastes excreted from bowels

J. a bowel movement

K. a body canal opening

L. a receptacle for excretion

M. excretes urine

N. sac that holds urine

O. portion of the large intestine to the anal canal

P. sex organs

Q. pan for vomit

R. to cough up and spit out

S. a colorless, volatile liquid used to test diabetes

T. the anal region

U. a container marked with lines for measuring

V. Instrument used to transfer feces from bedpan to container

STUDENT SELF-CHECK

Specimens

On a separate sheet of paper, record the best answer to each of the following questions. Check your answers against the key.

1. When is the most common time for collecting a sputum specimen?

   A. morning (before breakfast)
   B. morning (after breakfast)
   C. noon hour
   D. afternoon (before supper)

2. Which one of the following items is not necessary for obtaining a stool specimen?

   A. tongue blades
   B. bedpan and cover
   C. graduate cylinder
   D. label

3. When obtaining any specimen, what is the first step of the procedure?

   A. complete label
   B. check doctor's order
   C. identify patient
   D. explain procedure to patient

4. Before charting a 24-hour specimen, the patient should:

   A. withhold all solid foods
   B. fill out a container identification label
   C. void the bladder
   D. clean bedpan and cover

5. In routine instances, specimens are delivered to the:

   A. patient
   B. head nurse
   C. lavatory
   D. laboratory

6. To collect a sterile specimen, you should:

   A. ask the patient to void in a sterile bedpan
   B. clean the perineal area before the patient voids
   C. catheterize the patient
   D. ask the patient to void into a sterile specimen container

7. To collect a clean voided specimen, the first thing you should do is:

   A. clean the perineal area
   B. explain the catheterization procedure to the patient
   C. give the patient a glass of water to clear out the system
   D. give the patient a clean specimen bottle and instruct him/her to void

8. The urine specimen that includes all the urine voided by the patient from 7:00 a.m. one day to 7:00 a.m. the next day is called a:

   A. clean voided specimen
   B. midstream specimen
   C. sterile specimen
   D. 24-hour specimen

9. The most common lab test performed is the:

   A. 24-hour specimen
   B. sugar and acetone test
   C. routine urinalysis
   D. midstream specimen

10. Testing for sugar and acetone is usually done for patient with which disease or problem:

    A. diabetes
    B. heart disease
    C. tuberculosis
    D. cancer

CHECK-OUT ACTIVITIES

The statements below explain the activities you must be able to complete in order to finish this module. After you go through the activities, your evaluator will rate your performance using the Evaluator's Final Checklist, COLLECTING, TESTING, CHARTING, AND RECORDING SPECIMENS.

Provided with a simulated patient, physician's orders, a lab request and necessary equipment and supplies, you must be able to:

collect urine for a 24-hour period.
collect a routine urine specimen.
collect a clean catch (and/or midstream) urine specimen.
collect a stool specimen.
collect a sputum specimen.
test sugar and/or acetone.

COLLECTING, TESTING, CHARTING, AND RECORDING SPECIMENS

Student _____

Date _____

Evaluator's Final Checklist

Check the student's performance in the following elements of collecting, testing, charting, and recording specimens.

Place an X in the appropriate box indicating not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, the item was impossible to complete, place an X in the "Not Applicable" box.

Performance Level: All items must receive a rating of FULLY ACCOMPLISHED (or Not Applicable). If any items are rated Not Accomplished or Partially Accomplished, the student and evaluator will discuss this and decide which learning activities must be repeated.

	Student Performance			
	Not Applicable	Not Accomplished	Partially Accomplished	Fully Accomplished
1. When collecting a 24-hour urine specimen, the student:				
a. collected the urine in a correctly labeled container	[ ]	[ ]	[ ]	[ ]
b. collected the urine for a continuous 24-hour period	[ ]	[ ]	[ ]	[ ]
2. When collecting a routine urine specimen, the student:				
a. collected a sufficient quantity of urine (120-150 cc)	[ ]	[ ]	[ ]	[ ]
b. collected the urine in a correctly labeled container	[ ]	[ ]	[ ]	[ ]
3. When collecting a "clean catch" specimen, the student:				
a. collected the urine in a correctly labeled, sterile container	[ ]	[ ]	[ ]	[ ]
b. collected the urine from an interrupted urine stream	[ ]	[ ]	[ ]	[ ]
4. When collecting a stool specimen, the student:				
a. collected a sufficient quantity	[ ]	[ ]	[ ]	[ ]
b. collected the specimen in a correctly labeled container	[ ]	[ ]	[ ]	[ ]
5. When collecting a sputum specimen, the student:				
a. collected the specimen without contamination	[ ]	[ ]	[ ]	[ ]
b. collected the specimen in a correctly labeled container	[ ]	[ ]	[ ]	[ ]
6. When testing the urine for sugar and acetone, the student:				
a. correctly determined the results of the test	[ ]	[ ]	[ ]	[ ]
b. correctly recorded the results without error	[ ]	[ ]	[ ]	[ ]

STUDENT SELF-CHECK KEY

Terminology

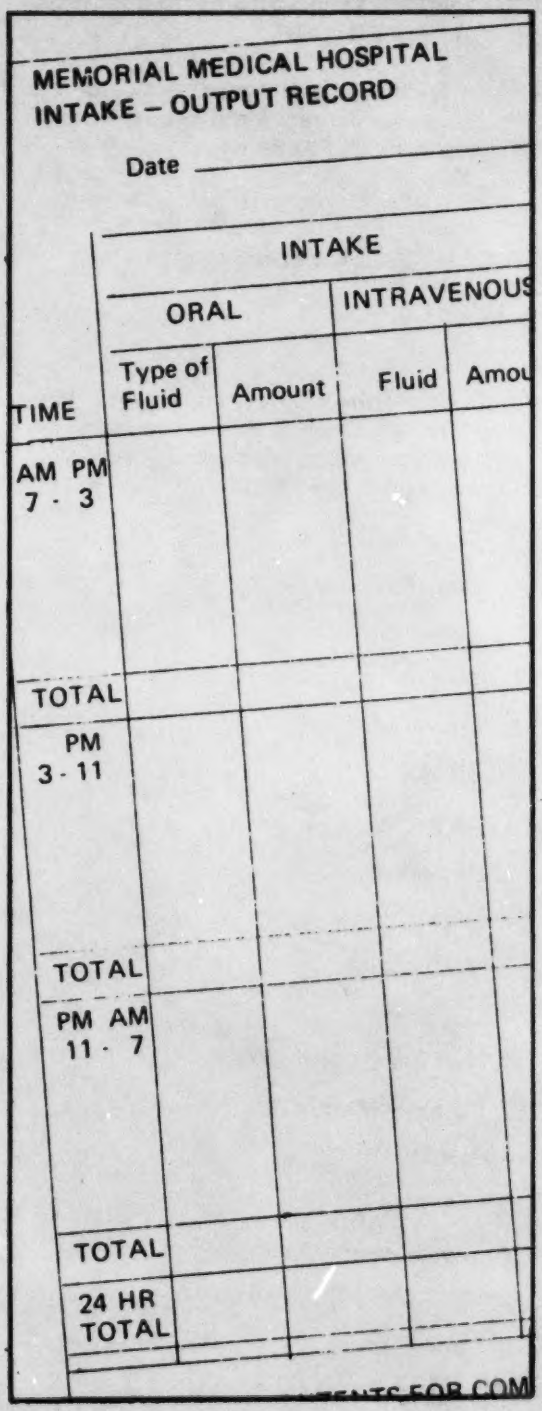
1. D
2. F
3. N
4. M
5. C
6. P
7. O
8. L
9. Q
10. S
11. H
12. R
13. G
14. J
15. I
16. T
17. K
18. B
19. U
20. V
21. E
22. A

STUDENT SELF-CHECK KEY

Specimens

1. A
2. C
3. B
4. C
5. D
6. C
7. A
8. D
9. C
10. A

ASSISTING WITH CARE OF URINARY DRAINAGE UNIT



MEMORIAL MEDICAL HOSPITAL
INTAKE – OUTPUT RECORD

Date _____

TIME	INTAKE			
	ORAL		INTRAVENOUS	
	Type of Fluid	Amount	Fluid	Amou
AM PM 7 - 3				
TOTAL				
PM 3 - 11				
TOTAL				
PM AM 11 - 7				
TOTAL				
24 HR TOTAL				

INTRODUCTION

The urinary drainage unit which consists of an indwelling catheter, drainage tubing, and a drainage bag is frequently used in the care of the critically ill patient who has an impairment of kidney function.

It is essential that the health assistant be able to use correct techniques when handling this unit in order to prevent infection, to promote correct drainage, and to provide the physician with correct intake and output readings.

DIRECTIONS

In order to complete this module you will need:

1. Teaching doll
2. Urinary drainage unit - prepackaged sterile unit
   a. Catheter
   b. Tubing
   c. Drainage bag
3. Bedpan
4. Graduated pitcher

Before you start to work on this module, be sure you have completed modules entitled, "Washing Hands," and "Measuring and Recording Intake and Output."

Read the objective. If you think that you are already able to perform this task, read the Check-Out Activities. Then either arrange

with your evaluator about doing the Check-Out Activities.

or

If you need to complete learning activities in order to be able to do the task, find the Learning Activities inside this module and go through them in the order in which they are listed.

OBJECTIVE

Given a teaching doll with a urinary drainage unit cleanse the insertion area completely, position tubing for even drainage, hang drainage bag to avoid tension on patient's skin, read the urine level in drainage bag accurately, and empty the drainage as ordered.

LEARNING ACTIVITIES

1. READ about Foley catheter care in your text, Nursing Skills for Allied Health Services, pp. 318-321.

   (and/or)_____

2. VIEW Trainex filmstrips, "Closed Urinary Drainage System," or "Important Procedures in Asepsis: Intravenous Fluid Therapy and Urinary Drainage."

   (and/or)_____

3. COMPLETE Student Self-Check, TERMINOLOGY.

4. STUDY Student Information, URINARY DRAINAGE UNITS.

   (and/or)_____

5. VIEW a demonstration of catheter care by instructor.

   (and/or)_____

6. PRACTICE cleansing area, positioning tubing, hanging drainage unit, reading urine level, and emptying drainage.

   (and/or)_____

7. COMPLETE Student Self-Check, CATHETER CARE.

8. ARRANGE with your evaluator to complete this module by going through the Check-Out Activities.

STUDENT SELF-CHECK

Terminology

Match the terms in Column A with their definitions in Column B. Record your answers on a separate sheet of paper. Check your answers against the key.

Column A

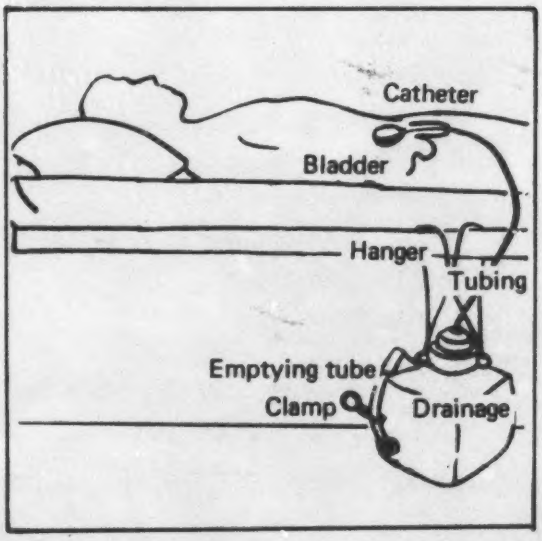
1. Catheter
2. Urine
3. Urinate
4. Alignment
5. Kidney
6. Ureter
7. Retention
8. Dysuria
9. Micturition
10. Urinalysis
11. Urinary Bladder
12. Urinary Meatus
13. I + O
14. I.V.P.
15. Pyelograms

Column B

A. Abbreviation for intake and output
B. Reservoir to hold urine
C. Organ which produces urine
D. Tube from kidneys to bladder
E. Lab test for examination of urine
F. Painful voiding
G. Hollow tube made of rubber or plastic
H. Outside opening from the bladder
I. To retain or store
J. Liquid waste product of the body
K. Urination
L. Correct position
M. To void or pass urine
N. X-ray exams of the urinary tract
O. Intravenous pyelogram

STUDENT INFORMATION

Urinary Drainage Units



Present day urinary drainage units are preconnected and come packaged as a sterilized unit. There is a variety of types on the market. Study the diagram and identify the major parts:

1. Bladder
2. Catheter
3. Tubing
4. Drainage bag
5. Hanger (holds bag in position from bed frame)
6. Emptying tube with clamp

STUDENT SELF-CHECK

Catheter Care

Read each statement and determine whether it is true or false. On a separate paper record your response. Compare your answers with the key.

1. It is not necessary to wash your hands before giving catheter care.
2. The drain tube should be taped to the patient's thigh 30.5 to 45.7 cm (12 to 18 inches) from the insertion site.
3. Tubing may be kinked or twisted.
4. Drainage bags should be lifted to eye level when reading the amount of drainage.
5. It is necessary to cleanse the insertion site daily with warm soap and water.
6. Observe the insertion site and surrounding area for irritation, redness, or swelling.

CHECK-OUT ACTIVITIES

The statement below explains the activities you must be able to complete in order to finish this module. After you go through the activities, your evaluator will rate your performance using the Evaluator's Final Checklist, ASSISTING WITH CARE OF URINARY DRAINAGE UNIT.

Given a teaching doll with a urinary drainage unit, cleanse the insertion area, position tubing, hang drainage bag, read urine level, and empty the drainage.

ASSISTING WITH CARE OF URINARY DRAINAGE UNIT

Student _____

Date _____

Evaluator's Final Checklist

Check the student's performance in the following elements of assisting with care of urinary drainage unit.

Place an X in the appropriate box indicating not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, the item was impossible to complete, place an X in the "Not Applicable" box.

Performance Level: All items must receive a rating of FULLY ACCOMPLISHED (or Not Applicable). If any items are rated Not Accomplished or Partially Accomplished, the student and evaluator will discuss this and decide which learning activities must be repeated.

	Student Performance			
	Not Applicable	Not Accomplished	Partially Accomplished	Fully Accomplished
When performing catheter care, the student:				
1. Cleansed area gently with warm soap and water, rinsed, and dried.	[ ]	[ ]	[ ]	[ ]
2. Positioned and taped tubing on patient's thigh.	[ ]	[ ]	[ ]	[ ]
3. Checked alignment of tubing to drainage bag, avoiding kinks or twists in tubing.	[ ]	[ ]	[ ]	[ ]
4. Read level of urine accurately.	[ ]	[ ]	[ ]	[ ]
5. Emptied drainage into bedpan or graduated pitcher and clamped tubing after emptying.	[ ]	[ ]	[ ]	[ ]

STUDENT SELF-CHECK KEY

Terminology

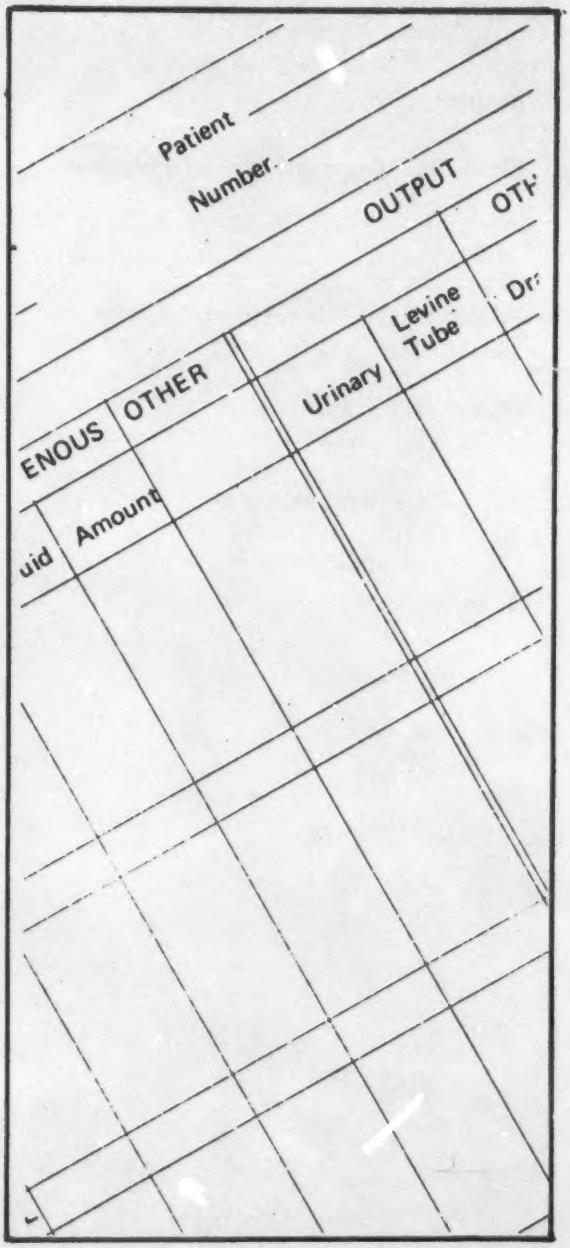
1. G
2. J
3. M
4. L
5. C
6. D
7. I
8. F
9. K
10. E
11. B
12. H
13. A
14. O
15. N

STUDENT SELF-CHECK KEY

Catheter Care

1. F
2. T
3. F
4. F
5. T
6. T

ASSISTING BED PATIENT WITH ELIMINATION OF BODY WASTES



INTRODUCTION

The elimination of body wastes is an important basic human need. This need must be fullfilled efficiently and in a manner which provides the patient with privacy and respect. The patient must be considered at all times as the most important factor in this procedure.

The bedpan and/or urinal should be provided as promptly as possible, in order for the patient to receive the care that he/she needs. All health assistants should be skilled in this procedure. In this module you will learn how to assist a bed patient in elimination of body wastes.

DIRECTIONS

In order to complete this module you will need:

1. Partner or teaching doll.
2. Bedpan and cover
   a. adult
   b. fracture
3. Urinal and cover
4. Toilet tissue
5. Basin of warm water
6. Soap
7. Towel
8. Washcloth
9. Specimens for practice
   a. jello - cherry
   b. pudding - chocolate and butterscotch
   c. tea

Before you start to work on this module, be sure you have completed the modules entitled, "Washing Hands," and "Measuring and Recording Intake and Output."

Read the objective. If you think you are already able to perform this task, read the Check-Out Activity. Then either arrange with your evaluator to do the Check-Out Activities,

or

If you need to complete learning activities in order to be able to do the tasks, find the Learning Activities and go through them in the order in which they are listed.

OBJECTIVE

Given a bed patient, a bedpan and/or urinal, and toilet tissue, assist a bed patient with elimination of body wastes. The following criteria must be met:

1. Position the patient so that:
   a. body is aligned and properly supported to prevent injury.
   b. linens and clothing are not soiled
   c. privacy is maintained to avoid embarrassment
2. Observation of appearance of waste material must be reported to instructor.

LEARNING ACTIVITIES

1. READ in your text, Nursing Skills for Allied Health Services, to learn about elimination of body wastes, pp. 294-304 and pp. 387-397.

   (and/or) _____

2. VIEW Trainex Filmstrips, "Bowel Elimination," and "Assisting Patient with Urine Elimination."

3. VIEW demonstration of procedure for giving and removing bedpans and/or urinals.

   (and/or) _____

4. PRACTICE giving and removing bedpans and urinals.

   (and/or) _____

5. COMPLETE Student Self-Check, TERMINOLOGY.

6. COMPLETE Student Self-Check, BEDPANS AND URINALS.

7. ARRANGE with evaluator to complete this module by going through the Check-Out Activities.

STUDENT SELF-CHECK

Terminology

On a separate sheet of paper, match the words in Column A to the definitions in Column B. Check your answers against the key.

COLUMN A

1. Bedpan
2. Urinal
3. Feces
4. Urine
5. Abnormal
6. Penis
7. Anal
8. Fracture Pan
9. Vulva
10. Frequency
11. Rectum
12. Flatus
13. Incontinence
14. Defecation
15. Diarrhea
16. Void

COLUMN B

A. Unusual appearance

B. Evacuation of the bowels

C. Gas in the digestive tract

D. Male organ which eliminates urine

E. Inability to retain feces or urine

F. Container used to receive bowel movements

G. Liquid body waste

H. Having to void often

I. Stool; solid body waste

J. Pertaining to anus (opening of the rectum)

K. Frequent bowel movements; often semi-liquid

L. Container used to receive urine

M. Lower part of large intestine

N. External genital area of female

O. A shallow type of bedpan

P. To urinate; pass liquid waste

STUDENT SELF-CHECK

Bedpans and Urinals

Read each statement and determine whether it is True or False. On a separate sheet of paper record your response. Mark "T" for True and "F" for False. Compare your answers with the key.

1. The patient must not be left alone while using bedpans and urinals.
2. The patient should be screened for privacy.
3. The signal cord does not have to be put where the patient can reach it.
4. The siderails should be raised for patient safety.
5. Excreta and urine should be checked for abnormal appearance.
6. You should report abnormal findings to your team leader/nurse.
7. The genital area need not be cleansed after a bowel movement.
8. You do not need to wash your hands after assisting patient with elimination of body wastes.

CHECK-OUT ACTIVITIES

The statement below explains the activities you must be able to complete in order to finish this module. After you go through the activities, your evaluator will rate your performance using the Evaluator's Final Checklist, ASSISTING BED PATIENT WITH ELIMINATION OF BODY WASTES.

Given a bed patient, a bedpan and/or urinal, and toilet tissue, assist the patient with elimination of body wastes.

ASSISTING BED PATIENT WITH ELIMINATION OF BODY WASTES

Student _____

Date _____

Evaluator's Final Checklist

Check the student's performance in the following elements of assisting bed patient with elimination of body wastes.

Place an X in the appropriate box indicating not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, the item was impossible to complete, place an X in the "Not Applicable" box.

Performance Level: All items must receive a rating of FULLY ACCOMPLISHED (or Not Applicable). If any items are rated Not Accomplished or Partially Accomplished, the student and evaluator will discuss this and decide which learning activities must be repeated.

	Student Performance			
	Not Applicable	Not Accomplished	Partially Accomplished	Fully Accomplished
When providing the bedpan and/or urinal, the student:				
1. Positioned the patient so that:				
a. body was aligned and propcrly supported to prevent injury	[ ]	[ ]	[ ]	[ ]
b. linens and clothing were not soiled	[ ]	[ ]	[ ]	[ ]
c. privacy was maintained to avoid embarrassment	[ ]	[ ]	[ ]	[ ]
2. Observed and reported appearance of waste material	[ ]	[ ]	[ ]	[ ]

STUDENT SELF-CHECK KEY

Terminology

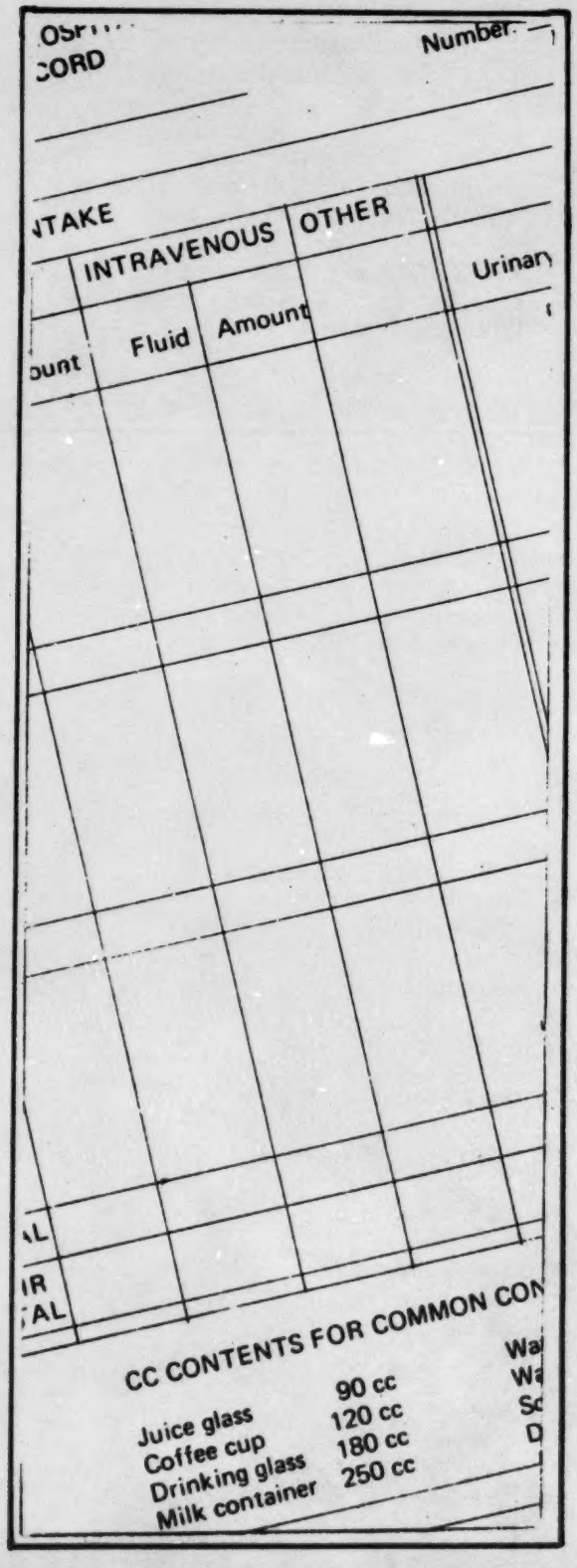
1. F
2. L
3. I
4. G
5. A
6. D
7. J
8. O
9. N
10. H
11. M
12. C
13. E
14. B
15. K
16. P

STUDENT SELF-CHECK KEY

Bedpans and Urinals

1. F
2. T
3. F
4. T
5. T
6. T
7. F
8. F

MEASURING AND RECORDING INTAKE AND OUTPUT



INTRODUCTION

In this module you will learn how to measure and record the fluid intake and output. Types of fluids include: liquids we drink, liquids in foods we eat, and liquids given artificially as intravenous infusions; liquids expelled, such as urine, perspiration, vomitus, wound and gastric drainage and blood loss.

These measurements will be accomplished using the metric measurement system. The accuracy of this task is important to the care of many patients and an aid to the physician in correctly treating the patient's condition. These are basic skills performed by any health assistant.

This module is directly related to studies on nutrition and body elimination.

DIRECTIONS

In order to complete this module you will need:

1. Intake and output equivalent chart
2. Graduated pitcher
3. Bedpan and urinal
4. Closed drainage system
5. Intravenous fluids (one bottle)
6. Emesis basin
7. Juice glass
8. Coffee cup
9. Water glass
10. Soup bowl
11. Dessert dish
12. Water pitcher

Read the objective. If you think you are able to perform this task, read the Check-Out Activity. Then either arrange with your evaluator about doing the Check-Out Activities,

or

If you need to complete learning activities in order to be able to do the task, find the Learning Activities and go through them in the order in which they are listed.

OBJECTIVES

(1) Given food and fluids to be distributed to patients on intake-output and equivalent chart, observe, measure, and record the amount of intake.
The following criteria must be met:
   a. All foods which should be measured as fluids must be identified.
   b. All fluids must be measured and recorded without error.

(2) Given a bedpan, urinal, graduated pitcher, emesis basin and intake-output record, observe, measure, and record output of the patient. Performance will be rated on the following criteria.
   a. Output must be collected in the correct manner.
   b. Output must be measured and recorded accurately.
   c. Observations of abnormal output conditions must be reported (to team leader).

LEARNING ACTIVITIES

1. READ about Intake and Output, Measuring and Recording in your text, Nursing Skills for Allied Health Sciences, pp. 346-360,
(and/or)_____ .

2. COMPLETE Student Self-Check, TERMINOLOGY.

3. VIEW Trainex Filmstrip, "Intake and Output" to learn about measuring and recording fluids,

(and/or)_____ .

4. PRACTICE measuring fluids, using Student Information, MEASUREMENT OF FLUIDS,

(and/or)_____ .

5. COMPLETE two sample Intake and Output Records using the Student Information found in the following case studies:
   a. Patient situation, and
   b. List of fluid intake and output,

(and/or)_____ .

6. Complete Student Self-Check, INTAKE AND OUTPUT.

7. ARRANGE with evaluator to complete this module by going through the Check-Out Activities.

STUDENT SELF-CHECK

Terminology

Match the words in Column A with their definitions in Column B. Record your answers on a separate sheet of paper. Check your answers against the key.

Column A

1. Urine
2. Vomitus
3. Wound Drainage
4. Transfusion
5. Intravenous
6. P.O.
7. Tube Feeding
8. Diarrhea
9. Hemorrhage
10. Perspiration
11. Urinal
12. Bedpan
13. Emesis
14. Void

15. Gastric Drainage

16. I and O

17. Diaphoresis

18. Profuse

19. Catheter

20. Diuretic

Column B

A. Stomach drainage obtained by suctioning through a tube inserted into the stomach.

B. Vomit or "up-chucking" of fluid from stomach.

C. Container for males to void in.

D. Excessive loss of blood.

E. Liquid food given to patient through stomach tube.

F. Fluid given through the veins.

G. Liquid lost from a surgical wound.

H. Liquid waste material from the kidney.

I. To pass liquid waste or urine from body.

J. A receptacle for excretion of feces and urine.

K. Fluid lost through the skin.

L. Excessive liquid bowel movements.

M. Abbreviation for "by mouth."

N. Giving of blood and blood components through the veins.

O. Same as emesis.

P. Abbreviation for Intake and Output.

Q. Agent increases urinary output.

R. Excessive.

S. Excessive perspiration.

T. Sterile tube inserted into bladder to remove urine.

STUDENT INFORMATION

Measurement of Fluids

Using the following equipment: cups, glasses, bowls, pitcher, bedpan and urinal, graduate, water and ice chips, perform the tasks below.

1. Fill the following containers with water:
   a. Juice Glass
   b. Water Glass
   c. Paper Cup
   d. Soup Bowl
   e. Dessert Dish
   f. Coffee Cup
   g. Water Pitcher

2. Measure water from each container with the graduate.

3. Record the number of cc's in each container.
   a. _____ cc
   b. _____ cc
   c. _____ cc
   d. _____ cc
   e. _____ cc
   f. _____ cc
   g. _____ cc

4. Fill a juice glass with ice chips; melt the ice chips and measure the contents.

5. Record the amount of water in the juice glass. _____ cc

6. Fill bedpan approximately 1/3 full of water and measure, using a graduate.

7. Record the amount of water in the bedpan. _____cc

8. Fill urinal approximately 1/3 full of water and measure, using a graduate.

9. Record the amount of water in urinal. _____cc

10. Empty approximately 1/2 of the contents of an infusion bottle.

11. Read and record the amount of fluid left in container. _____cc

12. Identify 250 cc, 500 cc, and 700 cc markings on closed drainage system.

STUDENT INFORMATION

Patient Situation

Using the container measurements given in this module on the sample Intake and Output Record, compute and record the fluid intake for the following patient. Compare your amounts to the key.

Mrs. Brown, Dr. A's patient, was placed on I and O on 9-11-79 at 4 a.m., following her admission to the hospital for treatment of severe dehydration. On 9-11-79 at 7 a.m. an intravenous of 1000 cc of 5% dextrose and water was started. For breakfast, served at 8 a.m., she received a juice glass of orange juice, 2 cups of coffee (she drank only one), cereal with a small pitcher of milk, toast and jelly. At 10 a.m. she was served a glass of ginger ale. At 12:30 p.m., she received her dinner tray which included salad, a ham slice, baked potato, peas, and a bowl of soup. She had ice cream for dessert. She left half of the soup and ate no salad. She drank 2 glasses of water at 4 p.m. At 6 p.m. she ate a bowl of jello, with a cheese sandwich, potato chips, and 2 cups of tea. At 7 p.m. all of the IV fluids had been absorbed. At 9 p.m. she took her sleeping medication with a small juice glass of milk.

STUDENT INFORMATION

List of Fluid Intake and Output

Put the following information in the proper columns on the sample Intake-Output Record and total the figure as explained in this unit. Compare your amounts to the key.

7:00 a.m.	urine	300 cc
8:00 a.m.	orange juice	90 cc
	milk	120 cc
	coffee	120 cc
9:00 a.m.	whole blood	500 cc
9:45 a.m.	diarrhea	200 cc
10:00 a.m.	urine	100 cc
11:30 a.m.	soup	180 cc
	jello	120 cc
	tea	150 cc
1:00 p.m.	5% D/W	500 cc
4:00 p.m.	urine	600 cc
5:00 p.m.	water	180 cc
6:00 p.m.	vomitus	250 cc
6:30 p.m.	ginger ale	150 cc
8:30 p.m.	urine	250 cc
10:00 p.m.	ginger ale	100 cc
1:00 a.m.	urine	150 cc
6:00 a.m.	water	90 cc

STUDENT SELF-CHECK

Intake and Output

Answer the following questions on a separate sheet of paper. Check your answers with the key.

1. Intake includes:
   a. liquids we drink
   b. liquids we eat in food
   c. intravenous infusions
   d. all of the above

2. Output does <u>not</u> include:
   a. urine
   b. perspiration
   c. dehydration
   d. emesis

3. The unit of measurement used to record intake and output is:
   a. cubic centimeter
   b. ounce
   c. gram
   d. liter

4. What type of record is used to record I and O?
   a. patient record
   b. fluid intake and output record
   c. graphic chart
   d. all of the above

5. Fluid balance can be upset in the body because of:
   a. vomitus
   b. diarrhea
   c. diaphoresis
   d. all of the above

6. If more fluids are lost from the body than are taken in, the patient will experience:
   a. edema
   b. ascites
   c. dehydration
   d. dyspnea

7. If a patient consumes a half bowl of soup and 2/3 glass of milk, approximately how much intake is consumed?
   a. 190 cc
   b. 158 cc
   c. 400 cc
   d. 242 cc

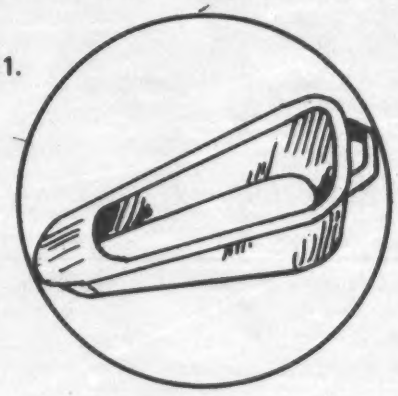
8. NPO refers to a patient who:
   a. cannot receive intravenous
   b. cannot have anything by mouth
   c. can have only liquids
   d. can receive large amounts of liquids

9. The average adult requires about _____ fluid per day.
   a. 1000 - 2000 ml
   b. 2000 - 3000 ml
   c. 3000 - 4000 ml
   d. 4000 - 5000 ml

10. To determine oral intake at mealtime:
    a. ask the patient what was consumed
    b. ask the dietician what was served
    c. measure the fluids on the tray
    d. guess the amount consumed by the patient

Identify the following items and write their names on a separate sheet of paper.

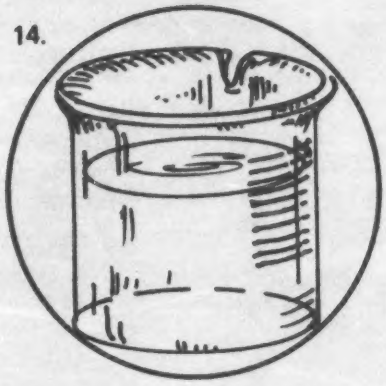
11.



12.

13.

14.



CHECK-OUT ACTIVITIES

The statement below explains the activities you must be able to complete in order to finish this module. After you go through the activities, your evaluator will rate your performance using the Evaluator's Final Checklist, MEASURING AND RECORDING INTAKE AND OUTPUT.

Provided with simulated patient and the necessary equipment and supplies, observe, measure, and record the patient's intake and output.

MEASURING AND RECORDING INTAKE AND OUTPUT

Student _____

Date _____

Evaluator's Final Checklist

Check the student's performance in the following elements of measuring and recording intake and output.

Place an X in the appropriate box indicating not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, the item was impossible to complete, place an X in the "Not Applicable" box.

Performance Level: All items must receive a rating of FULLY ACCOMPLISHED (or Not Applicable). If any items are rated Not Accomplished or Partially Accomplished, the student and evaluator will discuss this and decide which learning activities must be repeated.

	Student Performance			
	Not Applicable	Not Accomplished	Partially Accomplished	Fully Accomplished
When measuring and recording intake, the student:				
1. Identified all foods which should be measured as liquids.	[ ]	[ ]	[ ]	[ ]
2. Correctly measured and recorded amounts of all fluids.	[ ]	[ ]	[ ]	[ ]
When measuring and recording output, the student:				
1. Collected output in the correct manner.	[ ]	[ ]	[ ]	[ ]
2. Measured and recorded output correctly.	[ ]	[ ]	[ ]	[ ]
3. Reported abnormal output conditions to team leader.	[ ]	[ ]	[ ]	[ ]

STUDENT INFORMATION SHEET NO. 1 **Module IX-D**

Patient Situation Key

SAMPLE
INTAKE – OUTPUT RECORD

Patient Mrs. Brown

Date 9-11-79

Number

	INTAKE					OUTPUT			
	ORAL		INTRAVENOUS		OTHER			OTHER	
TIME	Type of Fluid	Amount	Fluid	Amount		Urinary	Levine Tube	Drainage	Amount
AM PM 7 - 3	juice coffee milk ginger ale soup	90 120 250 180 75							
TOTAL		715							
PM 3 - 11	water jello tea milk	360 120 240 90	D/W	1000					
TOTAL		810		1000					
PM AM 11 - 7									
TOTAL									
24 HR TOTAL									

CC CONTENTS FOR COMMON CONTAINERS

Juice glass	90 cc	Water pitcher	750 cc
Coffee cup	120 cc	Water pitcher top	120 cc
Drinking glass	180 cc	Soup bowl	150 cc
Milk container	250 cc	Dessert dish	120 cc

STUDENT INFORMATION SHEET NO. 1
List of Fluid Intake and Output Key

Module IX-D

SAMPLE
INTAKE – OUTPUT RECORD

Patient Mrs. Brown

Date 9-11-79

Number _____

	INTAKE					OUTPUT			
	ORAL		INTRAVENOUS		OTHER			OTHER	
TIME	Type of Fluid	Amount	Fluid	Amount		Urinary	Levine Tube	Drainage	Amount
AM PM 7 - 3	orange juice milk coffee soup jello tea	90 120 120 180 120 150	blood	500		urine urine		diarrhea	300 200 100
TOTAL		780		500					600
PM 3 - 11	water ginger ale ginger ale	180 150 100	D/W	500		urine urine		vomitus	600 250 250
TOTAL		430		500					1100
PM AM 11 - 7	water	90				urine			150
TOTAL		90							150
24 HR TOTAL		1300		1000					1850

CC CONTENTS FOR COMMON CONTAINERS

Juice glass	90 cc	Water pitcher	750 cc
Coffee cup	120 cc	Water pitcher top	120 cc
Drinking glass	180 cc	Soup bowl	150 cc
Milk container	250 cc	Dessert dish	120 cc

STUDENT SELF-CHECK KEY

Terminology

1. H
2. O
3. G
4. N
5. F
6. M
7. E
8. L
9. D
10. K
11. C
12. J
13. B
14. I
15. A
16. P
17. S
18. R
19. T
20. Q

STUDENT SELF-CHECK KEY

Intake and Output

1. D
2. C
3. A
4. B
5. D
6. C
7. D
8. B
9. B
10. C
11. fracture pan
12. bedpan
13. male urinal
14. graduate cylinder